

## ABSTRACT OF THE DISCLOSURE

System and method to emulate cellular automata based random number generators (CA-based RNGs) in software are presented. Also, system and method to automatically generate software emulators of CA-based RNG are presented. A CA-based RNG is where an  
5 output of each cell of the CA at time  $t$  is dependent on inputs from any cells of the CA (including perhaps itself) at time  $t - 1$ . The simulation software are high performing due to parallel simulation of multiple cells of the CA rather than emulating behaviors of cells individually and then combining the results. The simulation software may also include parallel site spacing capabilities.